



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute Form 1018/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>		
				Application Number	10/806,647	
				Filing Date	March 22, 2004	
				First Named Inventor	Clark R. Baker, Jr.	
				Art Unit	3768	
				Examiner Name	Etsub D. Berhanu	
Sheet	1	of	6	Attorney Docket Number		TYHC:0110-5 / 009103-009632

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
-CB ↓ -CB	A1	US-	3,647,299	03-07-1972	Lavallee	
	A2	US-	3,704,706	12-05-1972	Herczfeld et al.	
	A3	US-	4,063,551	12-20-1977	Sweeney	
	A4	US-	4,086,915	05-02-1978	Kofsky et al.	
	A5	US-	4,095,117	06-13-1978	Nagy	
	A6	US-	4,266,554	05-12-1981	Hamaguri	
	A7	US-	4,407,290	10-04-1983	Wilber	
	A8	US-	4,537,200	08-27-1985	Widrow	
	A9	US-	4,549,551	10-29-1985	Dyck et al.	
	A10	US-	4,621,643	11-11-1986	New, Jr. et al.	
	A11	US-	4,649,505	03-10-1987	Zinser, Jr. et al.	
	A12	US-	4,700,708	10-20-1987	New, Jr. et al.	
	A13	US-	4,705,049	11-10-1987	John	
	A14	US-	4,723,294	02-02-1988	Taguchi	
	A15	US-	4,763,282	08-09-1988	Rosenberg	
	A16	US-	4,770,179	09-13-1988	New, Jr., et al.	
	A17	US-	4,773,422	09-27-1988	Isaacson et al.	
	A18	US-	4,799,493	01-24-1989	DuFault	
	A19	US-	4,800,495	01-24-1989	Smith	
	A20	US-	4,802,486	02-07-1989	Goodman et al.	

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
-CB	B1	DE	3328862	A1	02-28-1985		
-CB	B2	EP	0341 327	A1	11-15-1988		
-CB	B3	GB	2 166 326		04-30-1986		
-CB	B4	GB	2 235 288		02-27-1991		
-CB	B5	SU	1674798	A1	09-07-1991		
-CB	B6	WO	92/15955		09/17/1992		

Examiner Signature	-Cav B. B. B.	Date Considered	03/10/2007
--------------------	---------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known		
				Application Number	10/806,647	
				Filing Date	March 22, 2004	
				First Named Inventor	Clark R. Baker, Jr.	
				Art Unit	3768	
Examiner Name				Etsub D. Berhanu		
Sheet	2	of	6	Attorney Docket Number		TYHC:0110-5 / 009103-009632

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number-Kind Code <sup>2</sup> (if known)					
AS	A21	US-	4,819,752	04-11-1989	Zelin		
↓	A22	US-	4,934,372	06-19-1990	Corenman et al.		
	A23	US-	4,824,242	04-25-1989	Frick et al.		
	A24	US-	4,848,901	07-18-1989	Hood, Jr.		
	A25	US-	4,860,759	08-29-1989	Kahn et al.		
	A26	US-	4,863,265	09-05-1989	Flower et al.		
	A27	US-	4,867,571	09-19-1989	Frick et al.		
	A28	US-	4,869,253	09-26-1989	Craig, Jr. et al.		
	A29	US-	4,869,254	09-26-1989	Stone et al.		
	A30	US-	4,883,353	11-28-1989	Hausman et al.		
	A31	US-	4,892,101	01-09-1990	Cheung et al.		
	A32	US-	4,907,594	03-13-1990	Muz		
	A33	US-	4,911,167	03-27-1990	Corenman et al.		
	A34	US-	4,927,264	05-11-1990	Shiga et al.		
	A35	US-	4,928,692	05-29-1990	Goodman et al.		
	A36	US-	4,948,248	08-14-1990	Lehman		
	A37	US-	4,949,710	08-21-1990	Dorsett et al.		
	A38	US-	4,955,379	09-11-1990	Hall		
	↓	A39	US-	4,956,867	09-11-1990	Zurek et al.	
	ES	A40	US-	4,958,638	09-25-1990	Sharpe et al.	

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	B7							
	B8							
	B9							
	B10							
	B11							
	B12							

Examiner Signature	<i>Etsub D. Berhanu</i>	Date Considered	03/10/2007
--------------------	-------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/806,647
				Filing Date	March 22, 2004
				First Named Inventor	Clark R. Baker, Jr.
				Art Unit	3768
				Examiner Name	Etsub D. Berhanu
Sheet	3	of	6	Attorney Docket Number	TYHC:0110-5 / 009103-009632

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
CB  						

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B13					
	B14					
	B15					
	B16					
	B17					
	B18					

Examiner Signature	<i>Etsub D. Berhanu</i>	Date Considered	03/10/2007
--------------------	-------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT		<b>Complete if Known</b>			
		Application Number	10/806,647		
		Filing Date	March 22, 2004		
		First Named Inventor	Clark R. Baker, Jr.		
		Art Unit	3768		
		Examiner Name	Etsub D. Berhanu		
Sheet	4	of	6	Attorney Docket Number	TYHC:0110-5 / 009103-009632

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
-CB ↓	A61	US-	5,494,032	02-27-1996	Robinson et al.	
	A62	US-	5,511,042	04-23-1996	O'Brien Jr.	
	A63	US-	5,524,631 A	06-11-1996	Zahorian et al.	
	A64	US-	5,553,615	09-10-1996	Carim et al.	
	A65	US-	5,632,272 A	05-27-1997	Diab et al.	
	A66	US-	5,685,299	11-11-1997	Diab et al.	
	A67	US-	5,769,785	06-23-1998	Diab et al.	
	A68	US-	5,758,644	06-02-1998	Diab et al.	
	A69	US-	5,769,785 A	06-23-1998	Diab et al.	
	A70	US-	5,853,364 A	12-29-1998	Baker, Jr. et al.	
	A71	US-	6,157,850 A	12-05-2000	Diab et al.	
	A72	US-	6,430,525 B1	08-06-2002	Weber et al.	
	-CB	A73	US-	6,836,679 B2	12-28-2004	Baker Jr., et al.
	A74	US-				
	A75	US-				
	A76	US-				
	A77	US-				
	A78	US-				
	A79	US-				

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	B19					
	B20					
	B21					
	B22					
	B23					
	B24					

Examiner Signature	- Etsub D. Berhanu	Date Considered	03/10/2007
--------------------	--------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				<b>Application Number</b>	10/806,647
				<b>Filing Date</b>	March 22, 2004
				<b>First Named Inventor</b>	Clark R. Baker, Jr.
				<b>Art Unit</b>	3768
<b>Examiner Name</b>	Etsub D. Berhanu				
<b>Sheet</b>	5	of	6	<b>Attorney Docket Number</b>	TYHC:0110-5 / 009103-009632

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CS	C1	Mook et al., "Wavelength dependency of the spectrophotometric determination of blood oxygen saturation," <i>Clinical Chemistry Acta</i> , 26:170-173 (1969).	
	C2	Rabiner et al., "Theory and Application of Digital Signal Processing," p. 260 (1975).	
	C3	Mook et al., "Spectrophotometric Determination of Oxygen Saturation of Blood Independent of the Presence of Indocyanine Green", <i>Cardiovascular Research</i> , 13:233-237 (1979).	
	C4	Nehorai, A., "A Minimal Parameter Adaptive Notch Filter With Constrained Poles and Zeros," <i>IEEE Transactions on Acoustics Speech, and Signal Processing</i> , ASSP-33(4):9083-996 (1985).	
	C5	Nehorai, A., et al., "Adaptive Comb Filtering for Harmonic Signal Enhancement," <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , ASSP-14 (5):1124-1138 (1986).	
	C6	Gilbert Strang, <i>Introduction to Applied Mathematics</i> , Wellesley Cambridge Press, Wellesley, Mass. (1986), pp. 148-152.	
	C7	Brown, "Evaluation of Pulse Oximeters Using Theoretical Models and Experimental Studies," Cover page-p. 2 (1987).	
	C8	Neuman, "Pulse Oximetry: Physical Principles, Technical Realization and Present Limitations," <i>Continuous Transcutaneous Monitoring</i> , pp. 135-144 (1987)	
	C9	Jinzheng et al., "Digital Processing of High-Resolution Electrocardiograms-Detection of His-Purkinje Activity from the Body Surface," <i>Biomed. Technik</i> , 33(10):224-230 (1988).	
	C10	Chen et al., "Adaptive System for Processing of Electrogastic Signals," <i>IEEE Engineering in Medicine &amp; Biology Society</i> , 11 <sup>th</sup> Annual International Conference, pp. 698-699 (1989).	
	C11	Klimasauskas, "Neural Nets and Noise Filtering," <i>Dr. Dobb's Journal</i> , 14(1):32-48 (1989).	
	C12	Severinghaus, "Pulse Oximetry Uses and Limitations," ASA Convention in New Orleans, LA (1989).	
	C13	Harris et al., "Digital Signal processing with Efficient Polyphase Recursive All-Pass Filters," <i>International Conf. on Signal Processing</i> , Florence, Italy (1991)	
	C14	Varanini et al., "A Two-Channel Adaptive Filtering Approach for Recognition of the QRS Morphology," <i>COMPUTERS IN CARDIOLOGY</i> , pp. 141-144 (1991).	
	C15	Robert Grover Brown and Patrick Y.C. Hwang, <i>Introduction to Random Signals and Applied Kalman Filtering</i> (2 <sup>nd</sup> Ed.), John Wiley & Sons, Inc., New York (1992), pp. 231-232, 261.	
	C16	Hendry, S.D., "Computation of Harmonic Comb Filter Weights," <i>IEEE Transactions on Signal Processing</i> , 41(4): 1677-1680 (1993)	
CS	C17	Testimony of Mohammed Diab, Testimony of Jack Goldberg, Reporter's Transcript of Proceedings, Morning Session, Feb. 24, 2004, pp. 626-710, US District Court, central District of California, No. CV 00 6506-MRP, Los Angeles, California	

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT****Complete if Known**

<b>Application Number</b>	10/806,647
<b>Filing Date</b>	March 22, 2004
<b>First Named Inventor</b>	Clark R. Baker, Jr.
<b>Art Unit</b>	3768
<b>Examiner Name</b>	Etsub D. Berhanu
<b>Attorney Docket Number</b>	TYHC:0110-5 / 009103-009632

Sheet 6 of 6

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CB	C18	Testimony of Jack Goldberg, Reporter's Transcript of Proceedings, Afternoon session, Feb. 24, 2004, pp. 711-806, US District Court, Central District of California, No. CV 00 6506-MRP, Los Angeles, California	
	C19	Testimony of Jack Goldberg, Reporter's Transcript of Proceedings, Morning session, Feb. 25, 2004, pp. 807-826, US District Court, Central District of California, No. CV 00 6506-MRP, Los Angeles, California	
	C20	Testimony of James Edward, Corenman, Testimony of Clark Raymond Baker, Jr., Testimony of Robert Thomas Stone, Reporter's Transcript of Proceedings, Afternoon session, March 3, 2004, pp. 1696-1795, US District Court, Central District of California, No. CV 00 6506-MRP, Los Angeles, California	
	C21	Testimony of Robert Thomas Stone, Reporter's Transcript of Proceedings, Morning session, March 4, 2004, pp. 1796-1884, US District Court, Central District of California, No. CV 00 6506-MRP, Los Angeles, California	
	C22	<i>Mallinckrodt Inc. and Nellcor Puritan Bennett, Inc. v. Masimo Corp. and Ivy Biomedical Systems, Inc.</i> , Memorandum of Decision and order Re Power-Trial Motions entered July 14, 2004.	
	C23	<i>Mallinckrodt Inc. and Nellcor Puritan Bennett, Inc. v. Masimo Corp. and Ivy Biomedical Systems, Inc.</i> , Final Judgment entered August 6, 2004.	
	C24	FastSat™ Whitepaper by Masimo Corporation (2 pages) - undated	
	C25	Cohen, <i>Biomedical Signal Processing</i> , Vol. 1, pp. 152-158.	
V	C26	Joint Exhibits: JTX-5009, JTX-5010, JTX-5013, JTX-5014, JTX-5015, JTX-5017, JTX-5021, US District Court, Central District of California, No. CV 00 6506-MRP, Los Angeles, California	
W	C27	Wahr, Joyce A., et al., "Pulse Oximetry," <i>Respiratory Care Clinics of North America, Blood Gas Measurements</i> , 1:1 (September 1995), pp. 77-105.	
	C28		
	C29		
	C30		
	C31		
	C32		
	C33		
	C34		
	C35		